

# Integrated Design Solutions Procedures Manual

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## 1.0 Introduction

The Integrated Design Solutions program (IDS) provides design assistance and calculated incentives to optimize non-residential projects for electrification and energy efficiency. Electrification refers to projects reducing gas use through implementation of efficient electric technologies, where savings are quantified in therms. SMUD's free design assistance offers insights and considerations for review and support of the design effort. Financial incentives help cover the incremental cost difference between efficient and standard design.

The IDS Program applies to new construction and standalone additions.

Note that changes to incentives and the program rules may occur between revisions of the Procedures Manual. Please visit [smud.org/IDS](https://smud.org/IDS) to ensure your version of the Procedures Manual is the most current.

***Incentives are first come – first served. No incentive is reserved for a project until SMUD provides a signed Reservation of Incentive. Any project completing without a Reservation of Incentive may risk losing the potential incentive.***

## 2.0 Program overview

- 1) The IDS program uses an incentive application available upon request at [IntegratedDesign@smud.org](mailto:IntegratedDesign@smud.org), or (916) 732-5095.
- 2) Owner incentives are calculated using multiple methods and are dependent on annual electrification (therms) and energy (kWh) savings.
- 3) A Reservation of Incentive (ROI), signed by SMUD, is required before construction is completed.
  - a) A customer has 60 days to provide the required information from the time a building permit is acquired to ensure a ROI is provided. At SMUD's discretion, an extension may be granted.
  - b) A ROI signed by SMUD will be issued within 60 days of obtaining sufficient information.
- 4) The IDS Program may require the whole building modeled approach to help determine incentive eligibility. This uses building simulation software to compare the baseline building performance to the proposed project and is required to determine the potential electrification and energy efficiency incentives available.
- 5) For specific incentive requirements, refer to the Appendices.

## 3.0 How to apply

Request a copy of the IDS incentive program application at [IntegratedDesign@smud.org](mailto:IntegratedDesign@smud.org) or call (916) 732-5095.

The IDS incentive program application is filled out and signed electronically using DocuSign™, and consists of the following three forms:

- 1) Incentive program application (Form 3714A)
  - a) **Instructions** – This page contains a checklist of required items for each phase of the project (page 1).

- b) **Step 1: Statement of Interest** – This is the first step in the application process, providing SMUD with background on the project. (page 2).
  - c) **Step 2: Customer Information** – The necessary information is filled in for the customer receiving the electrification and/or energy efficiency measures.
  - d) **Terms and Conditions** – The customer agrees to and accepts the Terms and Conditions. This is signed when submitting the Statement of Interest (page 3).
- 2) Reservation of Incentive (Form 3714B)
- a) **Reservation of Incentive** – Once the customer submits all required documentation, SMUD will review and return a signed Reservation of Incentive which sets aside incentive funds for the specified period if conditions and milestones for the Reservation of Incentive are met.

### 3.1 Projects in the proposal stage

For projects in the early proposal stage or pre-schematic design phase, the customer should submit the following information to receive an incentive estimate:

- 1) Incentive application, completed and signed.
- 2) Technical documents to allow estimation of incentive. Additional information may be required to support the analysis, such as equipment cut sheets, energy models, supporting calculations, etc.
- 3) For additional incentives, customers may consider participating in SMUD's optional automated demand response program, by submitting a PowerDirect<sup>®</sup> Statement of Interest.

***Remember, it is never too early to reach out to SMUD for an estimated incentive.***

***Incentives are first come – first served. No incentive is reserved for a project until SMUD provides a signed Reservation of Incentive.***

### 3.2 Requirements for a Reservation of Incentive

The customer must provide the following to receive a Reservation of Incentive:

- 1) Include SMUD in a design related meeting
- 2) Complete drawing set
- 3) Copy of the notice to proceed, purchase order, construction agreement, signed contract, or at the Program Manager's discretion, an alternative method may be allowed

In addition, at SMUD's discretion, the customer may be required to provide the following to receive a Reservation of Incentive:

- 1) Building simulation
- 2) Detailed scope of work
- 3) Equipment submittals or cut sheets
- 4) Supporting calculations
- 5) Sequence of Operations

With sufficient information, an incentive may be reserved for projects planned for completion within 36 months of when the Reservation of Incentive is issued. For eligible projects with

completion lead times beyond 36 months, pending SMUD approval, a pre-negotiated reserved until end date may be established for the Reservation of Incentive.

Pre-determined milestones will need to be met to maintain the Reservation of Incentive (i.e. SMUD energization, dates construction is completed, equipment will be onsite, etc.). Failure to complete the project by the date set forth in the Reservation of Incentive may result in ineligibility for the incentive and the Reservation of Incentive being cancelled.

### **3.3 Project completion**

- 1) If the milestones and project completion dates are not met, the Reservation of Incentive may be cancelled. At SMUD's discretion and pending budget availability, the project may be issued a new Reservation of Incentive under the rules of the current program year.
- 2) Completion of a project is determined when the incentivized equipment is energized and operational.

### **3.4 Projects ready for payment**

When the project is complete, the customer must do the following to receive an incentive:

- 1) Coordinate with SMUD for a site inspection to document the installed systems.
  - a. SMUD may inspect the project, adjust the incentive if necessary, and release incentive funds for payment.
- 2) Return the signed Incentive Payment Request.

## **4.0 Eligibility for participation**

### **4.1 Customer eligibility**

The IDS Program is open to all SMUD customers receiving electricity under a nonresidential rate. The customer will be the beneficiary of any electrification and energy efficiency improvements.

### **4.2 Partner firm eligibility**

Third parties (partner firms) including contractors, engineers, and energy services companies (ESCOs) may receive incentives on a customer's behalf. SMUD will require a letter of authorization or customer acknowledgement that they are authorized as a customer's agent or representative.

The customer may assign the incentive to the partner firm on the Incentive Payment Request (Form 3714C). The partner firm receiving the incentive payment will be required to enroll as a vendor with SMUD, submitting a W-9 and, if applicable, a CA-590.

### **4.3 Project eligibility**

IDS Program projects must meet the following criteria:

- 1) Located in SMUD service territory.
- 2) Permitted as new construction or an addition.
- 3) The customer is highly encouraged to provide a completed IDS Incentive Program Application prior to starting the design.

- a) Only measures that SMUD recommends and are incorporated into the design will be considered eligible.
- b) Verification may be required that the design was altered based on the recommended measures from SMUD.
- 4) Contractor must be licensed and qualified to perform the work.
- 5) All applicable city/county/state building and other permits have been obtained and finalized.
- 6) New equipment meets all applicable codes, including the State of California Title 24, parts 6 and Title 20.
- 7) Customer must be willing to participate in SMUD's future review of the project's performance for the purpose of determining the IDS Program performance. Customer may be requested to answer questions regarding the installed measures performance and agrees to the release of billing data to SMUD or its consultant. In the event the modification does not perform as well as expected, SMUD will not seek the return of incentives paid for projects negotiated in good faith.
- 8) The customer has not been suspended from participating in the IDS program.
- 9) Installed technologies do not appear on the Ineligible Measures List (refer to [Appendix D](#)).

## 5.0 Qualifying electrification and energy efficiency measures

Requirements of technologies applying for the IDS Program include:

- 1) **Cannot overlap other incentive programs** – Any measures included in the IDS incentive program application cannot apply for multiple electrification and energy efficiency incentives programs. SMUD, at its sole discretion and with preapproval, may make exceptions for projects using special SMUD programs. Cost caps will be observed when utilizing multiple programs.
- 2) **Fuel substitution measures** – SMUD can pay incentives on projects switching from a fossil fuel to an efficient electric energy supply permitted by the CA Energy Code, also known as electrification. Fuel substitution measures require additional approvals. Using less gas in the proposed buildings without the use of electrification technologies will not be eligible for electrification incentives.
- 3) **Savings must not be reliant on behavioral changes** – Projects are required to have permanent electrification and energy efficient modifications and/or automated controls. Exceptions at SMUD's discretion.

## 6.0 Changes in design and SMUD interconnection

Projects applying for incentives under the IDS program may affect other parts of SMUD interconnection process. It is important to note that design changes and updates to buildings during construction are made specifically aware to [SMUD's Design & Construction Services](#) department. Failure to work with [SMUD's Design & Construction Services](#) department has led to the need for infrastructure upgrades at the customer/owner's expense day 1 of occupancy. This section outlines the various departments a new construction project that will engage SMUD at varying stages of design and construction. The IDS program manager is here to support and strengthen the collaboration with the customer's team to streamline and guide successful project completions.

## 6.1 SMUD Commercial Development

SMUD's commercial development team can assist customers and developers looking to gain an edge building in the [SMUD service territory](#). Our commercial development team is here to support developers through the build process, from project conceptualization and implementation to meter set up and utility account activation. Your dedicated commercial development representative will coordinate all the touch points within SMUD, as well as serve as a liaison to facilitate integration with other utility services.

## 6.2 SMUD Distribution Planning & Operations

[SMUD's Distribution Planning & Operations](#) develops short-term and long-term plans for SMUD's distribution system to meet capacity, reliability and regulatory compliance requirements. The department is also responsible for the safe and reliable operation of SMUD's distribution system to deliver energy to our customers.

## 6.3 SMUD Design & Construction Services

Whether you're adding an electric vehicle charger or building your dream house or a sports arena, [SMUD's Design & Construction Services](#) team is here to help you connect to SMUD's electric system.

## 6.4 Solar

Interconnected energy storage will be treated as distributed generation and falls under Rule and Regulation 21 – Interconnection Requirements. Please refer to [Rate Policy 11-01](#) for policy and requirements. To qualify for Net Energy Metering (NEM), all storage must be charged with renewable energy on site.

## 6.5 EV charging

To align with statewide goals to reduce carbon emissions, the SMUD Commercial Electric Vehicle (EV) program supports the growth of commercial vehicle electrification and the increased need for electric vehicle service charging equipment (EVSE) by offering direct incentives, as well as tailored consulting or installation services, for both fleet vehicles and installed on-site EVSE. SMUD is looking to lead other municipal utilities in working with customers, contractors, and industry, along with state and local governments, to expand EV adoption and support EV market transformation.

## 7.0 Performance approach

Incentives are calculated by determining the difference in annual energy consumption between the proposed efficient system and a baseline system.

### 7.1 System calculation

Individual systems are calculated using spreadsheets, or with prior approval from SMUD, other software tools, to determine annual electrification (therms) and energy (kWh) savings.

## 7.2 Whole building modeled

A whole building simulation may be required to determine potential electrification incentives and will be required to determine potential energy efficiency incentives.

SMUD accepts building simulation software approved by the California Energy Commission. With prior approval from SMUD, software not listed with the California Energy Commission (CEC) may be used to model systems not able to be modeled with CEC-approved software, such as underfloor air distribution, thermal mass, natural ventilation, radiant cooling & heating, heat recovery with heat pump technology, or other innovative strategies. Refer to [Appendix B](#) for a more detailed description of the whole building simulation methodology.

## 8.0 Prescriptive approach

SMUD offers fixed incentives for common measures with a streamlined process.

Where applicable, the whole building simulation determines which systems are eligible for an electrification incentive. The prescriptive Go Electric approach for electrification measures is offered to projects replacing gas-fired equipment with efficient electric equipment, streamlining the process for determining eligible incentives. Please refer to [Appendix A](#) for more information.

## 9.0 Demand reduction incentive

The IDS Program does not offer incentives for peak demand reduction, such as thermal storage or other load shedding technologies.

## 10.0 Program alternatives

There are several other commercial program offerings through SMUD that may prove to be beneficial, such as Custom Retrofit ([smud.org/Custom](http://smud.org/Custom)) for existing buildings, Greenergy® ([smud.org/Greenergy](http://smud.org/Greenergy)) along with other green pricing options, and Electric Vehicle Service Equipment (EVSE) opportunities ([smud.org/Going-Green/Electric-Vehicles/Business](http://smud.org/Going-Green/Electric-Vehicles/Business)). Check [smud.org/GoElectricBiz](http://smud.org/GoElectricBiz) and reach out to your Strategic Account Advisor for the most current program offerings.

New multi-family construction and mixed-use buildings may use the All-Electric Smart Homes ([smud.org/SmartHomes](http://smud.org/SmartHomes)). Existing multifamily buildings can apply for Multifamily Whole-Building housing incentives ([smud.org/Multifamily](http://smud.org/Multifamily)).

## 11.0 Incentive payments

### 11.1 First come, first served

IDS program funds are available on a first come, first served basis. Incentive budgets are finite and could potentially be exhausted. Only projects receiving a Reservation of Incentive are guaranteed an incentive if the project meets prescribed milestones that best fit the project and are completed within the stated timeframe.

## 11.2 Incentives from other programs

SMUD, at its sole discretion, will determine the most applicable SMUD incentive program for a customer.

## 11.3 Incentive rates and caps

IDS program project incentives are applied per customer site, per year, per completed and permitted project plan set. The customer site includes all buildings on a parcel or contiguous parcels (campus) considered by SMUD to be a single customer of record. A project seeking multiple permits (i.e. sitework, Core & Shell, Tenant Improvement, etc.) for the same building are treated as one project.

Incentive caps and rates are determined at the time the customer applies to the IDS program. A project cannot be divided across a calendar year to receive multiple incentives unless the phases are separately permitted with separate construction documents.

For projects incorporating both electrification and energy efficiency measures, the incentives will be additive.

Large projects that exceed the project incentive caps and realize extraordinary utility benefits may be eligible for special incentives, at SMUD's sole discretion.

## 11.4 Changes to project scope

If the project scope changes between the Reservation of Incentive and the post-installation inspection, SMUD reserves the right to either modify or discontinue the incentive. If scope changes are brought to SMUD's attention prior to the equipment being ordered, SMUD may evaluate any scope changes for potential incentive adjustments.

Scope changes with program participation also need to be brought to SMUD Design & Construction Services department in accordance with [Section 6.0](#).

## 11.5 Incentive payments

Provided the project has been installed, the customer (or the payee designated customer) indicated on the Incentive Payment Request can expect to receive a single incentive payment, by check, within 30 days of submission of all required completed incentive applications, technical data sheets, and other documentation. Failure to provide these documents within 60 days of project completion may forfeit the incentive for the project.

- 1) Incentive Payment Request (Form 3714C)
  - a) **Incentive Payment Request** – Upon completion of the project, the customer submits the signed Incentive Payment Request to SMUD. At this time, the customer may assign the incentive to another party.

## **11.6 Duration of measure installation**

Over the course of many years, SMUD gains long term environmental and electrical grid benefits from the installed gas and electrical saving measures receiving a financial incentive. The expectation is the measures remain installed for the operational life of the equipment. In the event SMUD determines that equipment is disabled or removed prematurely, outside of normal business practice and before the end of its useful installed life, SMUD reserves the right to reclaim any incentives paid to the project. Additionally, the customer could potentially be banned from participating in additional SMUD program offerings.

## **12.0 Post-installation inspection**

Once the project is installed and operational, SMUD may inspect the new systems to verify the installed scope of work. Photographs will be taken to document how the project was implemented. The inspection will be conducted, either in-person or remotely, at SMUD's discretion. Remote inspections are performed over a video conferencing platform (i.e. Microsoft Teams, Google Meet, or Apple FaceTime).

## **13.0 Project costs**

### **13.1 Project cost**

The project costs are the entire cost of implementing the electrification or energy efficiency measure which is receiving the incentive.

When an electrification or energy efficiency measure is a component of a larger project, SMUD reserves the right to request documentation verifying the value of only the tasks related to the measures receiving the incentive.

### **13.2 Cost documentation**

Prior to an incentive payment, SMUD may require the customer to submit project costs using the following protocols:

#### ***Acceptable methods of demonstrating project cost:***

- 1) All invoices, receipts, etc. must include adequate detail of the new equipment/measures.
- 2) Copy of the contractor's final invoice indicating overall contract value.
- 3) Copy of the contractor's partial payment invoice indicating both the overall contract cost and enough invoiced payments to cover all the project incentive caps.
- 4) SMUD may require additional documentation in cases where invoicing is unclear, or deficient in some way.

#### ***Eligible components of project cost:***

- 1) Allowable project costs may include engineering, construction, equipment, materials, removal, recycling, overhead, tax, and shipping.
- 2) Project cost may not include spare parts, maintenance supplies, maintenance contracts, standby/backup equipment, or other equipment that does not contribute to the realization of energy savings.

- 3) Project cost may not include any costs incurred in advance of an executed contract or order such as sales, marketing, audits, or assessments.

## **14.0 Project termination**

SMUD values all customers who endeavor, in good faith, to participate in SMUD's programs and will make every effort to renegotiate completion dates or incentives prior to the expiration or termination of applications. However, projects may be terminated (cancelled) at SMUD's discretion if they satisfy any of the following conditions:

### **14.1 Projects with IDS application completed**

Projects with a completed IDS incentive program application will be nullified:

- 1) After one year unless progress has been made toward the Reservation of Incentive.
- 2) Customer is unable to provide appropriate and complete documentation (technical data sheets, signed contracts, etc.) for SMUD to issue the Reservation of Incentive before project is completed.

These projects may be reinstated at any time under current program rules provided the IDS Program still exists, incentives are available, and the project is still eligible.

### **14.2 Projects with Reservation of Incentive completed**

Incentive applications for projects with a completed Reservation of Incentive will be nullified if:

- 1) SMUD determines that significant information was purposely withheld or falsely stated in the incentive application.
- 2) The project fails to be installed and operational prior to the installation deadline.
- 3) Pre-determined project milestones are not met.
- 4) Customer formally requests to withdraw from the program.
- 5) Customer fails to provide complete documentation (incentive payment request, technical data sheets, invoices, etc.) within 60 days of project completion.
- 6) The IDS incentive program application is a duplicate.

### **14.3 Appeal of termination**

Prior to terminating or cancelling an application, SMUD will email a notice to the customer at the email address on the IDS incentive program application. The customer has seven (7) calendar days to provide a written appeal to [IntegratedDesign@smud.org](mailto:IntegratedDesign@smud.org) with reasoning for an extension request. Note that failure to complete the project or provide the required documentation does not constitute a valid reason for extension.

After the seven (7) calendar day appeal period, the application will be cancelled.

## 15.0 Customer suspension

If SMUD determines that a customer has acted in a manner to indicate an intent to defraud SMUD, SMUD will restrict participation in its programs. Any project installed during the suspension period is ineligible for incentives.

SMUD will ask the party being suspended to acknowledge the suspension. Regardless of the acknowledgement, the suspension period begins on the date of the notice of suspension. Legitimate incentives for projects found to be erroneous will be forfeited in all cases except those warranting a warning letter.

SMUD may apply suspensions to individuals, businesses, customers, equipment distributors, and vendors.

Infractions are removed one year from the notice of suspension. The following table contains guidelines. SMUD reserves the right to accelerate or lengthen the suspension period in its sole discretion.

	<b>Example of issue (not a comprehensive list)</b>	<b>Suspension period</b>
Carelessness or unintentional variance	<ul style="list-style-type: none"> <li>• Minor error in equipment count</li> <li>• Minor error in determining equipment wattage or capacity</li> </ul>	<ul style="list-style-type: none"> <li>• First infraction: Warning letter</li> <li>• Second infraction: 90 Days</li> <li>• Third infraction: 180 Days</li> </ul>
Deliberate miscalculation	<ul style="list-style-type: none"> <li>• Substantially overstating wattage/horsepower/tonnage of existing equipment (ex: claiming 3-ton heat pump as a 5-ton heat pump, a 150-Hp motor as a 250-Hp motor, etc.)</li> <li>• Major overstatement of heat pump count (&gt;10%)</li> <li>• Improperly claiming project completion</li> </ul>	<ul style="list-style-type: none"> <li>• First infraction: 90 Days</li> <li>• Second infraction: 1 Year (12 months)</li> </ul>
Fraud	<ul style="list-style-type: none"> <li>• Doctoring manufacturers data sheets</li> <li>• Doctoring project cost documentation (invoices)</li> <li>• Submitting different invoices to SMUD and the customer</li> <li>• Submitting multiple applications for same project</li> <li>• Relocating or reselling incentivized equipment before the end of useful life</li> <li>• Knowingly islanding incentivized equipment from SMUD's grid before the end of its useful life</li> </ul>	<ul style="list-style-type: none"> <li>• First infraction: 1 Year (12 Months)</li> <li>• Second infraction: Permanent prohibition from participation.</li> </ul>

## 16.0 Contact information

A representative of the Integrated Design Solutions Program team can be reached by email at [IntegratedDesign@smud.org](mailto:IntegratedDesign@smud.org) or by phone at (916) 732-5095.

## Appendix A: System calculation (electrification and energy efficiency)

Where applicable, individual systems are calculated using spreadsheets or other tools to determine annual site electrification savings (measured in therms) or energy savings (measured in kWh). Site therms is the baseline equipment's gas usage offset by electrification technologies.

### Electrification Incentive:

- 1) \$6 / therm for first year energy savings:  
therms = Baseline gas usage in therms offset by electrification technologies.
- 2) Incentives are limited to the lesser of:
  - a. For 2019 CA Energy Code and earlier permitted projects, \$6 / therm, 50% of eligible project cost (refer to [section 13.0](#)), or \$150,000.
  - b. For 2022 CA Energy Code and later permitted projects, \$6 / therm, 90% of eligible project cost (refer to [section 13.0](#)), or \$250,000.

### Energy Efficiency Incentive:

- 1) \$0.15 / kWh for first year energy savings for non-lighting measures.
- 2) Incentives are the lesser of \$ / kWh incentive rates, 50% of eligible project cost (refer to [section 13.0](#)), or \$100,000.

## Appendix B: Whole building modeled (electrification and energy efficiency)

Whole building energy simulations are used to determine annual electrification (site therms) and energy (kWh) savings using California Energy Commission approved software. Other simulation software may be permitted with prior approval from SMUD.

### Electrification Incentive:

- 1) \$6 / therm for first year energy savings.  
therms = Baseline gas usage in therms offset by electrification technologies.
- 2) Incentives are limited to the lesser of:
  - a. For 2019 CA Energy Code and earlier permitted projects, \$6 / therm, 50% of eligible project cost (refer to [section 13.0](#)), or \$150,000.
  - b. For 2022 CA Energy Code and later permitted projects, \$6 / therm, 90% of eligible project cost (refer to [section 13.0](#)), or \$250,000.

### Energy Efficiency Incentive:

- 1) \$0.15 / kWh for first year energy savings for non-lighting measures.
- 2) \$0.10 / kWh for lighting design.
- 3) Incentives are limited to the lesser of \$ / kWh incentive rates, 50% of eligible project cost (refer to [section 13.0](#)), or \$100,000.

When modeling the proposed building, the simulation software shall automatically compare it to the baseline building as prescribed in the CA Energy Code. The design team has the option to submit a separate building model representing the permitted CA Energy Code Standard building, and to compare both models directly instead of using the software's automatic baseline. This can be beneficial for certain projects where design complexities challenge the usefulness of the software's automatic baseline. If this route is pursued, the following guidelines shall be followed:

- 1) Incorporate the defined HVAC system for the permitted CA Energy Code Alternative Calculation Method (ACM) Reference Manual (System Descriptions) for the building(s).
- 2) Use the weather file as defined in the ACM Reference Manual (Climate Data) for CA Energy Code Climate Zone 12.
- 3) Incorporate the permitted CA Energy Code minimum performance on the envelope (wall, slab, roof, glazing), HVAC (efficiency), and lighting (LPD).
- 4) Include any operating conditions the permitted CA Energy Code (and the ACM Reference Manual, where applicable) impose on a Standard building, such as supply air temperature, temperature resets (water/air),  $\Delta T$  across the coils, pumping energy, fan energy, equipment sizing, economizers (water/air), VFD (pumps/fans/compressors), controls, data center cold aisle/hot aisle containment, refrigerated warehouse, etc.
- 5) Maintain identical, as in the Proposed building:
  - a. HVAC zoning
  - b. Physical features (building area, room area, orientation, window size/locations, etc.)

- i. An exception is when the Proposed building window to wall ratio (WWR) exceeds the allowable by the CA Energy Code. The Standard building is expected to follow the CA Energy Code and ACM Reference Manual requirements for WWR.
    - c. Internal loading (occupancy, sensible/latent loads, DHW, receptacle, process, etc.). The internal loads should match the design intent as closely as possible, using the same diversity factors.
    - d. Schedules
- 6) For determining the percent below the permitted CA Energy Code, use the permitted CA Energy Code Time Dependent Valuation (TDV) values.
  - a. For an energy efficiency incentive:
    - i. The Proposed building design incorporating mixed fuel needs to be 10% or better than the CA Energy Code minimally compliant building using TDV for 8760 hours for California Climate Zone 12.
    - ii. For an all-electric building design incorporating heat pumps to provide space heating, the project only needs to comply with the permitted CA Energy Code to receive an energy efficiency incentive. All other areas that are cooling dominated (i.e. data centers, refrigerated warehouses, indoor horticulture, etc.) need to comply with the 10% or better than the permitted CA Energy Code for a potential energy efficiency incentive.
  - b. When determining the % better than the CA Energy Code with TDV, exclude receptacle, process, other lighting, and process motors from the Standard and Proposed buildings.

For building projects required to tie into an existing central plant, use the following guidelines:

- 1) The Standard and Proposed buildings will use the same existing central plant performance and control strategies.
- 2) Some examples of energy savings realized from the Proposed building will be:
  - a. Reduction in gas usage using beneficial electrification technologies (such as heat pumps).
  - b. Electrical savings through more effective use of the central plant chilled water, such as four pipe VAV boxes, greater chilled water  $\Delta T$ , or warmer chilled water set points.
  - c. Central plant pumping energy realized as a benefit (or detriment) for the Proposed building.
- 3) The intent is the primary heating and cooling systems the building is tied to, beyond five feet from the building, are identical between both models.
  - a. The Standard building would use the permitted CA Energy Code, using the ACM Reference Manual (System Descriptions).
  - b. The Proposed building model would be as designed.
- 4) If the central plant happens to also be undergoing upgrades, the Standard building in that case would be modeled with the respective CA Energy Code for the specific upgrades made, with all other central plant systems remaining identical between the two models.

The electrification and energy savings would be determined by comparing the Standard and Proposed results. When comparing the results of the separate Standard and Proposed models, where a Standard and Proposed building is generated, use the “Proposed” model results of each.

Submit a memo describing the project, identifying notable electrification and energy efficiency measures (equipment and control strategies). Include a table highlighting the Standard and Proposed building systems and control strategies that include relevant sections of the permitted CA Energy Code and Alternative Calculation Method (ACM) Manual used to define the Standard building.

Once the results for the models are identified by building system (i.e. space heating, space cooling, indoor fans, heat rejection, pumps & misc., domestic hot water, indoor lighting, receptacle, process, other lighting, and process motors), SMUD will determine the electrification and energy efficiency savings and incentive.

## Appendix C: Go Electric prescriptive incentives

Customers participating in the IDS program may be eligible for Go Electric prescriptive incentives.

The prescriptive incentives are for spaces requiring heating from heat pumps. For spaces largely cooling dominated, SMUD's discretion will be used on the applicability of the prescriptive incentive.

Where system baseline equipment types are not clear or cannot be confirmed by the ACM Reference Manual, a whole building energy simulation will be required to determine eligibility. Prescriptive incentives are fixed (per unit of capacity).

The incentive offered for eligible projects is the lesser of:

- 1) For 2019 CA Energy Code and earlier permitted projects, system prescriptive incentive, 50% of eligible project cost (refer to [section 13.0](#)), or \$150,000.
- 2) For 2022 CA Energy Code and later permitted projects, system prescriptive incentive, 90% of eligible project cost (refer to [section 13.0](#)), or \$250,000.

### Hybrid Systems

Heat pump systems with electric supplemental heat, occasionally called hybrid systems, are considered all-electric and eligible for prescriptive incentives. The prescriptive incentive only applies to the compressor capacity of the heat pump and not the capacity of the electric resistance.

For current prescriptive Go Electric incentives, see the latest at [smud.org/GoElectricBiz](https://smud.org/GoElectricBiz).

## **Appendix D: Ineligible measures**

Measures and products ineligible for the IDS program:

- 1) Lighting fixtures
- 2) Technologies that fail to meet state and federal standards including the State of California Title 24 and Title 20
- 3) Measures that are not permanently installed and can be easily replaced such as:
  - a. Refrigerant additives
  - b. High performance hydraulic fluid
- 4) Solar water heating for pools and spas
- 5) Duty cyclers
- 6) Measures that save energy solely due to behavior changes (changing the hours of occupancy for example)
- 7) Power factor correction and power conditioning equipment
- 8) Self-generation
- 9) Server virtualization
- 10) Networked desktop power management software